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## Essays

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### University repository overlay journal – increasing the quality and visibility of student research at the University of Split, Croatia

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#### Abstract

The University of Split has started a new journal based on the university's repositories. *ST-OPEN* is an overlay journal<sup>1</sup> open to students and teachers from the University of Split, as well as from other universities in Croatia. ST in the title stands for “students” but is also the abbreviation for the city of Split. It is an interdisciplinary and multidisciplinary e-journal – an “interjournal”<sup>2</sup> that will adopt the diamond model of open access (that is, there will be no charge for either authors or readers).

This article presents the rationale for creating *ST-OPEN* and considers its specific innovative approach to scientific publishing.

**Keywords:** Journal, overlay; Repository, Research, Student, Universit

#### Introduction

The scientific publishing world is changing rapidly. The traditional publishing business model is now challenged by the development of digital technology, which created a number of new tools and opportunities, including digital repositories, open source publishing management, and open access.<sup>2</sup>

Not only has the publishing process become more open and innovative, but opportunities for even greater change have unfolded for new stakeholders in scientific publishing, particularly the universities, challenging the role of the traditional publisher.

Many universities today have moved from the traditional role of producers of research and passive supporters (and customers) of established publishing business models to creators of digital publishing platforms. Some are now embracing the possibility of active and innovative scholarly publishing through institutional repositories.<sup>1</sup>

Underpinned by the emergence of digital repositories, such as the arXiv preprint server of Cornell University,<sup>2</sup> overlay journals have emerged as a method of providing quality assurance and reader navigation to repository contents.<sup>3</sup> The most commonly used definition of an overlay journal is that of Van de Sompel *et al.*:<sup>4</sup> “An overlay journal is a journal that does not publish any original articles but rather selects articles that exist elsewhere, adds certain value to the selection, and publishes the results as a service to its user base”. The purpose of an overlay journal as a structure built on existing data (for example a university repository) is to add a guarantee of quality to the content

by providing peer review, which is still considered as the most important contribution of journals to the scientific publishing process.<sup>5</sup> Overlay journals, because of their interaction with a repository, thus transform the repository into a proper scholarly publishing medium. Research repositories reflect four main functions of many types of scholarly communication, namely registration, certification, awareness and archiving, which were the original reasons for the creation of scientific journals in the 17th century.<sup>6</sup> Modern journals add peer review and selectivity as the fifth function, required for scholarly publishing – rewarding the research (and authors) with the quality seal of external peer review.<sup>2,7</sup> Article selection also adds value to readers by signalling the most useful and relevant content of large repositories. The resulting journal also creates a showcase in which research from a single institution (or group of institutions) is brought together.

#### Why an overlay journal for student research?

While the idea of overlay journals is quite old, with the first overlay journal published in 1996,<sup>2</sup> overlay journals have remained restricted to the fields of physics, computer sciences and mathematics.<sup>2</sup> We are not aware of the existence of overlay journals in other fields of research. The University of Lund created the *Lund Virtual Medical Journal (LVMJ)* as an overlay to its university research repository, but this journal was a post-publication journal, collecting articles that were already published in standard scientific journals in order to increase awareness,<sup>8</sup> and it is no longer active.

*ST-OPEN* has been created as a new type of overlay journal that has a broad, multidisciplinary scope, which we hope will promote interdisciplinary collaboration across university schools and departments. What makes *ST-OPEN* even more distinctive is that it will focus on graduate student research (for example from Masters' and doctoral programmes), selecting the best student-supervisor research work for publication. We are not aware of overlay journals targeting students as researchers. We believe that in this way we will help the University of Split increase the overall quality of research and strengthen its role as a research university. In 2017, the University of Split reached the 8th position among all universities in 13 countries that joined the European Union after 2000. This leading position in Croatia was the result of the continuous effort of the University of Split and its rectors, particularly Professor Šimun Anđelinović (2013-2017) and Professor Dragan Ljutić (2017-) who recognised the value of our idea

of an overlay journal and readily supported its creation. The University has pledged to provide full financial support for the editorial office, which consists of the Editor in Chief (employed part time), Deputy Editor, Language Editor (translator) and part-time Technical Editor. Our hope is that other universities will join *ST-OPEN* in future and contribute to the running cost of the journal.

The creation of *ST-OPEN* reflects our experience of publishing a small journal in a small scholarly community,<sup>9</sup> where the characteristics of the so-called scientific periphery, small size of the research community, lack of financial support, and language barrier, all contribute to a vicious circle of journal quality and international visibility.<sup>10</sup> In our experience, these problems can only be addressed with a systematic, multi-level approach: we worked with individual authors (the author-helpful journal policy),<sup>11-14</sup> groups of authors at a journal writing workshop,<sup>15</sup> future authors in a mandatory undergraduate course on research methodology and evidence-based medicine,<sup>16-18</sup> and through a novel doctoral programme.<sup>19</sup>

While student research is an important component at research-intensive universities,<sup>20</sup> in the environment of the scientific periphery, it is very difficult to achieve high student participation in research. Students are burdened with the curriculum and academics are under pressure to publish despite the barriers of working in departments with little experience of high quality research and lacking research tradition and infrastructure (and sometimes also the technical support) of well-established research-intensive universities. In such circumstances, students' research projects required for a degree, such as a Master's thesis, may be perceived as an unnecessary burden, by both student and supervisor, and a formality, resulting in a lack of good research and appropriate quality assessment.<sup>17</sup> This problem is particularly grave in the social sciences and humanities, which do not have the practice of publishing in journals and for subjects that tend to publish in national language journals. In such cases the students and supervisors in many departments are the first, or at least, a very early generation to be expected to publish in international journals. Another advantage of an overlay journal such as *ST-OPEN*, where articles are published in English or other European languages when relevant is the opportunity to present national cultural and social heritage (in this case relating to Croatia) to the global community.

### ***ST-OPEN* and DABAR repository**

*ST-OPEN* is organized as an online open access overlay interjournal. It will extract most of its content from the documents deposited in the national platform DABAR – Digital Academic Archives and Repositories (<https://dabar.srce.hr/en/repositories>) which is a national repository of all bachelor and master theses, doctoral theses, other types of specialist college diploma work and other publications, including original scientific reports from conferences, and research data from Croatian universities. The University of Split repository is actually a collection of 16 departmental repositories plus the repository of the University Library,

which unifies all individual repositories and functions as an independent repository. As of 8 March 2019, the Split University repository contained 6812 records from the year 2000, including 3093 diploma (Masters) theses.

### ***ST-OPEN* editorial process**

At the moment, *ST-OPEN* focuses on selection and peer review of graduation theses (Masters theses) from the University of Split, but will invite other Croatian universities to create a national overlay journal. We will also consider direct submissions from researchers, who can deposit their work in DABAR and contact the journal with a submission letter.

The process of article selection will be somewhat different from, but definitely more complex than, the usual practice of overlay journals because all graduation theses are published in Croatian. Members of the *ST-OPEN* Editorial Board select a thesis (or other work) of interest for the journal, and the *ST-OPEN* editors approach the supervisor and the student and offer to work with them on transforming the thesis into a manuscript in English. *ST-OPEN* does not restrict the length of the manuscript, and the only requirement is that it presents research results. The initial publication (thesis) in DABAR is considered to be the non-reviewed pre-print version of the article.<sup>21</sup> The *ST-OPEN* editors work with the authors, using the author-helpful policy developed in the *Croatian Medical Journal*.<sup>11-13</sup> The manuscript in Croatian deposited in DABAR is first sent for an official intramural review by the Editorial Board or experts in the research field they suggest. One student reviewer will be included in the review of each manuscript. After the revision of the manuscript in this first peer review step, the manuscript is translated into English (by *ST-OPEN*) and sent out for external peer review (external of the University and in most cases external to Croatia). If the reviews are favourable, the manuscript is sent back to the authors and accepted if the final revision is acceptable. After acceptance, the article is deposited in DABAR and published in *ST-OPEN* as the final published version of the manuscript.

*ST-OPEN* is a multidisciplinary journal not restricted to a specific research field. We hope that this multidisciplinary approach will bring researchers from different research fields and perhaps give them ideas for interdisciplinary collaboration – within the university and with the other Croatian and international research groups. We do not see multidisciplinary as a disadvantage, particularly in the time when bibliographic databases or web searchers and not individual journals are sources of information for researchers.<sup>22,23</sup>

### **The expected impact of *ST-OPEN***

The first aim of *ST-OPEN* is an indirect but concrete practical training of students in scientific publishing.<sup>11,16,17</sup> This will prepare future researchers for their research/academic careers by training them in standards and practices of the scientific publishing process.<sup>14</sup> The second aim is to increase scientific production and global visibility for the scholarly research of the University of Split.

*ST-OPEN* does not aim to publish *great* research or to achieve a high academic impact, but to serve as a tool to advance research education of university students and the visibility of a small university. It will be a large and multidisciplinary journal, so our editorial board is large, including at least one member from each university school or department. However, since there are approximately 150 study programmes, “satellite” academic editorial boards will be formed at each school or department. We will also have a “satellite” student editorial board, which will provide important feedback to the journal about the needs and experiences of students and also serve as the promotor of the journal among the students at the University and beyond.

Some 2000 students per year graduate from the University of Split and we estimate that, if we manage to transform 10% of their theses into research articles, it would be a good result. Without the existence of *ST-OPEN*, most of this work would never be published outside the theses written in Croatian. We hope, however, that the positive experience of students from our collaboration and the visibility of their work to the international community will encourage students and even create some form of competition to publish in *ST-OPEN*. The key basis for this hope is our author-friendly policy, which proved to be an effective method to build the research capacity in a small scholarly community.<sup>10,11,15,18</sup>

Our future plan includes systematic education in research methodology<sup>17,18</sup> for all students at the level of the university, outside of the journal activities. In this way, we hope to increase the quality of student research and thus increase the pool of excellent articles for *ST-OPEN*.

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